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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,996	08/10/2001	C. Reuben Walker		7352

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EXAMINER

TELLER, ROY R

ART UNIT	PAPER NUMBER
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1654

DATE MAILED: 01/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,996

Applicant(s)

WALKER, C. REUBEN

Examiner

Roy Teller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Applicant's election of group I, claims 1-9 and 20 in Paper No. 4, received 12/31/02 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

The disclosure is objected to because of the following informalities:

The first paragraph of the specification refers to a cross reference to related applications, specifically disclosure documents # 482,942 and # 490, 994. Please delete or clarify what the disclosure documents are. The application has no parent application on the declaration, so the examiner is unsure as to what the disclosure documents are.

Page 4, line 5: alows should be changed to allows.

Page 4, line 13: ddriedings should be changed to drawings, if this is the correct interpretation by the examiner.

Page 4, line 16: cdried fish should be changed to dried fish.

Page 4, line 21 and 22: ddriedings should be changed to drawings, if this is the correct interpretation by the examiner.

Appropriate correction is required.

Drawings

New corrected drawings are required in this application because of objections raised by U.S. Patent and Trademark Office draftsman. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

Claims 1, 4, 8, and 20 are objected to because of the following informalities:

Claim 1, steps E and J: ph should be changed to pH.

Claim 1, step F: stiring should be changed to stirring.

Claim 4: ph should be changed to pH.

Claim 8: ph should be changed to pH.

Claim 20, steps E and J: ph should be changed to pH.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,3, 7, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, step B and claim 20, step B recite “..less than 3/16” in diameter.”. It is not clear what is less than 3/16” in diameter. The examiner believes that this refers to the particle size of the shellfish waste meal. Rejection of these claims may be overcome by stating: “...shellfish waste meal particles that are equal to or less than 3/16” of an inch in diameter.”

Claims 3 and 7 provides for the use of H₂O but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 3 and 7 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Rejection of claims 3 and 7 may be overcome by applicant stating in claims 3 and 7: “...whereby the liquid is water.”

Claims 2, 4, 5, 6, 8, and 9 are included in this rejection for depending upon a rejected claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peniston (USPN 4,199,496).

The claimed invention is drawn to a method for reducing the calcium and phosphorus ration and increasing crude protein in shellfish waste meal. This is accomplished by mixing the shellfish waste meal with hydrochloric acid, adding water to adjust the pH of the slurry, stirring, settling and draining the slurry, rinsing the treated shellfish meal with water, checking the pH of the treated shellfish meal, draining and drying the shellfish meal.

Peniston teaches the extraction and recovery of chemicals from the shell of various crustacea species and discloses the recovery of a calcium compound from the shell matrix (see abstract). Peniston teaches the recovery of protein by feeding the solid waste continuously to a series of countercurrent vessels, column 8, lines 57-58. Peniston discloses that the rates of extraction are improved by reducing the particle size of the shell fragment, column 7, lines 30-32. Peniston teaches that shellfish waste should be reduced to a size in the range of 0.05"-0.15"

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mean diameter, column 8, lines 38-39. Peniston teaches a 8-14 mesh per square inch screen represents a practical balance between diffusion and loss of material in the recovery steps, column 7, lines 32-35. Peniston discloses demineralization by treatment for 24 hours with HCL, column 5, lines 34-35. Peniston discloses that by processing the shell of crustacea, both the chitin and the protein can be recovered, column 6, lines 62-66. Peniston teaches that the protein is precipitated by hydrochloric acid, column 9, lines 43 and 45, the protein is collected and washed, column 9, line 50. Peniston discloses the protein starts to precipitate at the isoelectric point, pH 3.5 to 4.5, column 9, lines 41-42. Peniston teaches that the advantage of this invention is to provide a process for recovering protein at a low cost, to provide a commercially useful material, columns 7-8, lines 63-65 and line 2.

Peniston does not teach some of the claim 1 and 20 steps such as: stirring the slurry, settling the slurry, draining the treated shellfish meal, or drying the treated shellfish meal. Regarding claim 6 of the instant application, the screen used by Peniston to separate particles to a size of 0.05"-0.15" would have openings of less than 0.185" in diameter. Regarding claim 4 of the instant application of a pH of less than 2, this would be routine optimization because peniston teaches that the desired proteins precipitate out at a pH of 3.5-4.5 or less. Absent evidence to the contrary (or unexpected results) the remaining limitations recited above are routine optimization of a known method.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to use the protein extraction method of Peniston in order to enhance the commercial viability of this method.

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Conclusion

All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Teller whose telephone number is (703) 305-4243. The examiner can normally be reached on Monday-Friday from 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback, can be reached on (703) 306-3220. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

RT
1654
1/8/03

RT

Brenda Brumback
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SUPERVISORY PATENT EXAMINER
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